Periscope.

a.—ANATOMY.

The Comparative Anatomy of the Pyramid Tract. By SPITZKA, *Journal of Comparative Medicine and Surgery*, Jan., 1886.

This very important article should be read by all who are interested in the anatomy of the nervous system, as it contains many new and suggestive conclusions and suffers by any attempt at condensation.

1. The presence of symmetrical columnar eminences on either side of the ventral sulcus or fissure of the oblongata is a characteristic feature of the mammalia as a group. Three different anatomical elements may, singly or in combination, produce these elevations: first, the true pyramids—man, carnivores, rodents, bats; second, the interolivary layer—elephant; third, the olives—porpoise.

2. In probably all edentates these columns are so faintly marked as to be scarcely identifiable—(sloth, armadillo).

3. In the elephant and porpoise the pyramids are demonstrably absent, as an expression probably of the physiological characters of these animals.

4. Among the remaining mammalia two different types of olivary development are found, which closely follow the zoölogical subdivisions. In the first type—primates, chiroptera, carnivora, rodentia—the pyramids are bulky, and extend as coarsely demonstrable bundles the entire length of the oblongata, and decussate as coarse bundles into the opposite half of the cord. In the second type—ungulata—they are small in proportion to the brain, do not extend as coarsely demonstrable bundles the entire length of the oblongata, and being apparently exhausted in supplying the cranial nerve nuclei, do not decussate as bundles into the opposite half of the cord.

5. With those animals having typical pyramids the cerebral portion of these tracts has the following constant characters: *a*, it is connected with the so-called motor fields of the cerebral hemispheres; *b*, runs behind the knee of the int. capsule; *c*, forms a part of the pes pedunculi; *d*, pierces the transverse fibre mass in

the caudal half of the pons ; *e*, is separated by an appreciable interval from the interolivary layer while in the pons ; *f*, runs ventrad of the trapezium ; *g*, runs ventro-mesad of the true olives ; *h*, decussates grossly into the opposite half of the spinal cord.

6. The decussation of the pyramids exhibits three different types.

A. The common type, the great mass of each pyramid passing into the opposite lateral column of the cord—primates, carnivores, some rodents.

B. The great mass of the pyramids passes into the opposite posterior column—muridæ, cavia (less pronounced).

C. The pyramid decussates on the surface of the brain, and passes into the lateral field of the oblongata—frugivorous bats.

7. Among animals presenting type A the pyramids are an index of the preponderating influence of the higher centres, and this is made manifest by two factors : first, the relative area of the trans-section of the pyramid ; second, the crowding of the olives from a deep mesal situation to a more lateral and superficial one. 1st. The relative area of the pryamid tract in the oblongata increases in the order of intelligence, but this is true only for animals of the first type. 2d. The prominence of the olive becomes more marked as we pass up in the scale of pyramid development.

8. Among the same group of animals there are instances where the pyramids are larger with bulkier species : thus they are proportionately greater in the lion than in the leopard, and in the leopard than in the cat; larger in the bear than in the cratimundi ; in the baboon than in the cebus. This fact seems to be in relation to the greater preponderance of the isthmus as a whole, in larger species.

9. There is no parallelism in the mammalian series between the development of the transverse fibre mass of the pons and the pyramids. The elephant has the largest transverse fibre mass in the series, but it has no pyramids.

10. There is no parallelism between the development of the pyramids and the degree to which the trapezium is concealed by the pons. This concealment is complete in the elephant, and partially so in the porpoise, but neither of those animals has a pyramid.

11. There is no parallelism between the development of the olives and the pyramid. The former are fairly developed in the above species, though the pyramids are absent. But in animals of the same type (first type, class A) there is an approach to such parallelism, in that the V-shaped nucleus dentatus is larger with larger pyramids, and becomes convoluted with the highest forms.

12. Animals with a well-developed pyramid have a wider basilar raphé than those without such ; the extreme type of the latter (porpoise) having practically none.

13. It is due to the atrophy and disappearance of the pyramid

tract in the series ungulata—cetacea proboscidea—that the transverse axis of the olivary body becomes horizontal, so that the relation of the three olivary sub-nuclei which in man is that of ectal, main, and mesal, is in these animals dorsal, main, and ventral. To this general rule the elephant offers an exception owing to the vicarious development of the outer olivary layer in the place typically occupied by the pyramid. In all ungulata the type of the olive is the same.

14. The true pyramid always courses, in greater part, ventrad of the trapezium, the interolivary layer always passes through or over the trapezium, and where the trapezium is defective, as in man, in the homologous situation, which can be easily identified.

The function of the pyramid tract as deduced from comparative anatomy and physiology, is to control digital motor actions, especially of a prehensile kind. As this motion becomes more elaborate, and more subjected to higher intellectual needs, the pyramid tract is relatively enlarged. It is not present in elephant and dolphin, where it is not needed.

S. is inclined to believe that there is a closer phylogenetic relation between the pyramid tract and the posterior columns than at first sight seems plausible. The same tract may pass into the posterior columns, or into the crossed pyramidal tract, the former in the muridal, the latter in the typical forms. Even in man fibre admixtures between the interolivary tract, which goes to the post. columns, and the pyramid occur. It may be that there are transition forms between the two extremes ; and that relations between these tracts, partly of mutual support and parallel development, partly of vicarious character, are to be established.

Other conclusions reached are that the corpora geniculata externa are parallel in their development to the visual organs and tracts ; and that the corpora geniculata interna are parallel in their development to the auditory organ and tracts. Also that the column of Goll in the cord is parallel in its development with the development of the hind limbs.

The article is full of interest to the anatomist or physiologist, and merits careful study.

On Prof. Hamilton's Theory Concerning the Corpus Callosum.

By C. Beevor, *Brain*, Oct., 1885.

The assertions of Hamilton, of Aberdeen, regarding the course of the fibres in the corpus callosum, were reported in the last number of this Journal. It will be remembered that Hamilton denies that the function of this mass of white matter is to connect similar parts of the two hemispheres, and throws doubts on its commissural nature.

Spitzka has opposed this view from the study of the development of fibres in the brains of two infants, and supports the position taken by Flechsig, that the manner of development of the callosal tracts proves them to pass between symmetrical structures (*The American Journal of Neurology*, iii., 620). He also cites the well-known facts of hemiplegia in contradiction of the Scotch pathologist's position, that tracts pass from one hemisphere into the capsules of the other hemisphere.

Beevor has combated the new theory also, on the grounds of embryology. His statements are definitely opposed to those of Hamilton, and in support of the commissural view of the corpus callosum. The observations of Flechsig, Spitzka, and Beevor, are therefore in harmony, and as it is chiefly on embryological grounds that Hamilton's theory is based, the question becomes one of fact, and appears to be open to but one solution. Further careful researches will therefore succeed in deciding it definitely.

There can he no question that certain physiological acts, such as the ease of symmetrical bilateral movements, demand as an anatomical basis commissural tracts in the brain, whose function is to harmonize bilateral action. If they do not lie in the corpus callosum, they must exist elsewhere, and we know of no other structures in which they can pass. It seems as if physiology supported the older view; and as Hamilton's facts are disputed, it cannot yet be discarded. M. A. STARR.

The Structure of the Pineal Gland. By DR. L. DARKSCHEWITSCH, *Neurol. Centralbl.* (Mendel), No. 2, 1886.

A number of authors, among them Schwalbe and Edinger, have denied the ganglionic structure of this body. The author of the above paper supports the views of Meynert and Hagemann, and has succeeded in demonstrating, with the aid of Weigert's hæmatoxylin staining method, the existence of distinct sets of fibres in this "gland." These fibres can be traced to the internal capsule, the *striæ medullares*, to the fasciculus retroflexus (Meynert), the tractus opticus, or to the posterior cerebral commissure. D. is inclined to attach special importance to the last-named set of fibres, in consequence of the intimate relation existing between the posterior commissure and the oculo-motor nerves. His conclusions are based upon a study of the pineal gland in the frog, monkey, dog, ape, and in the human fœtus. B. S.

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b.—PHYSIOLOGY.

The Heat-Centre in the Brain. By ARONSOHN and J. SACHS, *Pflüger's Arch.*, vol. xxxvii., 5 and 6, Oct. 29, 1885.

Landois has shown by sections in the internal capsule that effects on the temperature of the body can be produced analogous to those shown to take place in the cortex cerebri by Eulenburg and Landois. The vaso-motor tracts run from the cortex to the fasciculi of the corona radiata, to the internal capsule, and then into the pedunculus and pons where vaso-motor fibres have been long known to exist. The increase of temperature here is entirely vaso-motor—that is, due to lessened heat-dissipation. Richet has lately put forth the claim of priority of having discovered a heat-centre in the brain. He made punctures in the cortex cerebri, and claims to have produced an increase of temperature which lasted for a long time, several days. Neither Ott, nor Sachs and Aronsohn in rabbits were able to obtain any increase by puncturing the cortex, except a slight one which was fugitive. Richet also claims priority for having shown calometrically that this increase was due to increased heat-production. His claims will have to be verified before they are admitted into the dispute of priority. Ott has shown that in the neighborhood of the corpus striatum are heat centres, and that these centres are more definitely located at the anterior inner end of the optic thalami, for the increase of temperature (7° F. in an hour) was greatest at this point. He also has shown by the calorimeter that this increase of temperature or artificial fever is due to increased heat-production.

Some months after these announcements Sachs and Aronsohn show that in the nucleus caudatus and in the tissues beneath the corpus striatum—that is, about the corpus striatum, are heat-centres. They also announce at the same time that estimations of the amount of oxygen consumed and of the carbonic acid given off, as well as the nitrogen excreted before and after the puncture in the brain show that the increase of heat is due to increased heat-production. *Cf.* also Eulenburg : Ueber das waerme centrum im Grosshirn—*Centralblatt für klinische Medicin*, Verhandlung der Physiolog. Gesellschaft zu Berlin, 1884–1885, No. 16. Richet : *Pflüger's Arch.*, Band xxxvii. Heft 11 and 12. Ott : *Philadelphia Medical Times*, July 4, 1885.

The Time it takes to See and Name Objects.

By J. M. Cattell, *Mind*, January, 1866.

Mr. J. M. Cattell has made a series of experiments upon this subject. He pasted letters on a revolving drum (a physiological kymograph) and determined at what rate they could be read aloud as they passed by a slit in a screen. It was found that the time varied with the width of the slit. When the slit was one centimetre wide (the letters being one cm. apart), one letter was always in view. As the first disappeared the second took its place, etc. In this case it took nine persons experimented on from $\frac{1}{3}$ to $\frac{1}{5}$ second to read each letter. We found it took twice as long to read (aloud as fast as possible) words which have no connection as letters which make words. As the result of a large number of experiments the writer found that he had read words not making sentences at the rate of $\frac{1}{4}$ second ; words making sentences at the rate of $\frac{1}{8}$ second per word. Letters not making words were read in $\frac{1}{40}$ sec. less time than words not making sentences. The rate at which a person reads a foreign language is proportional to his familiarity with the language. The subject does not know that he is reading the foreign language more slowly than his own ; this explains why foreigners seem to talk so fast. The time required to see and name colors and pictures of objects was determined in the same way. The time was found to be about the same (over $\frac{1}{2}$ sec.,) for colors as for pictures, and about twice as long for words and letters. Other experiments I have made show that we can recognize a single color or picture in a slightly shorter time than a word or letter, but take longer to name it. This is, because in the case of words and letters the association between the idea and the name has taken place so often that the process has become automatic, whereas in the case of colors and pictures we must, by a voluntary effort, choose the name. Such experiments would be useful in investigating aphasia.

ISAAC OTT.

Nouvelles Expériences á propos de la Locomobilité Intracranienne du Cerveau. By M. G. LUYS, *Gazette des Hôpitaux*, p. 1179, 1885.

In the communication made to the French Academy of Medicine in 1884, Luys endeavored to prove, by means of experiments upon the cadaver, that the cerebral mass being smaller than the cranial cavity, and the space between brain and bony covering thus formed being filled with fluid, the brain could accomplish certain sliding movements, analogous to the movements of the fœtus in the amniotic fluid. Change therefore in the position of the head, would produce a corresponding displacement of the brain itself. In lying upon the back, the brain loses its point of contact with the cranium in front ; it is similar if the head rests upon the frontal region, then the occipital parts of the brain leave the cranium behind. Thus movement of the head will influence the position of the brain in the cranium. These movements of the brain explain the physiological action of the arachnoid. This is a serous membrane and must have a similar function to serous membranes in other parts of the body. Its function is to facilitate these movements. One objection made to Luys' views was that, as he had performed his experiments upon heads, whose bony covering had been subjected to traumatism, thus producing conditions anomalous to those normally existing, his experiments could not be utilized for the purpose of proving the correctness of his views.

L. has now endeavored to meet this objection by freezing the entire head, and then making sections of the skull and brain together, the body during the freezing process having been kept either in the horizontal or vertical positions. The sections were then made either horizontally or vertically, and tracings made through a plate of unpolished glass. The first tracing shows a horizontal section of the skull and brain of a subject placed in the horizontal position. The second, shows a vertical section, in a vertically placed subject. The results were the same as in the former experiments. The space left by the movement of the brain, between it and the cranium, corresponded in all cases to the position of the subject, and in these spaces was found congealed fluid. Thus the proof of the movements of the brain is furnished, and at the same time, the physiological action of the arachnoid is explained. GEO. W. JACOBY.

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c.—GENERAL PATHOLOGY.

Ueber die Spastische Cerebral Paralyse im Kindesalter (Hemiplegia Spast. Infantilis), nebst einem Excurse ueber "Aphasie bei Kindern." By PROF. M. BERNHARDT, of Berlin. *Virchow's Archiv*, p. 26, 1885.

In this article Prof. Bernhardt treats at some length of infantile spastic hemiplegia. His paper is based upon eighteen cases, of which fourteen were cases of right hemiplegia, and four of left hemiplegia. As aphasia is a prominent symptom of this disease, the author reviews the entire subject of "Aphasia in Children." Regarding aphasia from a purely clinical point of view, Bernhardt concludes (as many others have) that aphasia is of frequent occurrence in children, that its etiology is about the same as in adults, with this exception, that reflex-aphasia (so called) is more common, and that this special form may follow upon indigestion, psychical emotions (fear, fright, etc.), and may be consecutive to, or appear in the course of, many acute infectious diseases; that all acute or chronic cerebral diseases which would in the adult be accompanied by aphasia are attended by this same symptom in children; that in the majority of cases aphasia is a transient symptom which is not necessarily coupled with *right* hemiplegia, and that it is generally of the ataxic or motor type; and lastly, it is the author's opinion that the nature of the lesion in cases of congenital aphasia (without paralysis) has not been satisfactorily established. The symptoms of the disease, for which the author advocates the term "(Infantile) Spastic *Cerebral* Paralysis," are the following: At first general or unilateral convulsions, preceded occasionally by tremors in the affected part, and followed at irregular intervals by typical epileptic convulsions; aphasia; intellectual impairment, which may lead to idiocy; hemiplegia of the cerebral type, the leg not as severely paralyzed as the arm; athetoid movements most pronounced when the attempt is made to move the paretic fingers; associated movements of the healthy side similar to those attempted on the hemiplegic side, or *vice versa;* no marked sensory disturbances; no R. D.; knee-jerks present, and somewhat exaggerated on the affected side.

While the author believes that we are justified in considering this disease a *clinical* entity, he states that the pathological lesions are not always the same; the various pathological processes having but this one feature in common, that they ultimately lead, if the life of the patient be spared, to an atrophy and sclerosis of the component elements of the entire hemisphere. For the present then the disease should be designated according to the clinical symptoms and not by the pathological terms—Porencephaly (Kundrat), or Poliencephalitis (Strümpell). For a detailed differential diagnosis between this disease and the better-known infantile spinal paralysis, we refer the reader to the original article, which is well worth reading, and also to the article of Dr. McNutt on Double Inf. Sp. Hemipl. (in the *Am. J. of Med. Sci.*, January, 1884), with which Bernhardt does not seem to be acquainted.

Ueber einen Fall von Porencephalie. By PROF. O. BINSWANGER, of Jena. *Virchow's Archiv*, vol. cii., p. 13, 1885.

In connection with the above article of Bernhardt, Prof. Binswanger's paper is of especial interest. It is a pathologico-anatomical contribution to the subject of which Bernhardt has treated from a purely clinical point of view. This case of defective cortical development which Binswanger describes is especially noteworthy, as the individual concerned attained the age of forty. The history of the patient was as follows : No hereditary predisposition to mental or nervous diseases. The patient was born with his right upper extremity atrophied and paralyzed ; it could never be used. The right lower extremity paretic. Epileptic convulsions from earliest childhood on ; the attacks were severe ; the patient would often be in an unconscious condition for days and weeks at a time ; marked dementia. In later years the epileptic attacks were followed by a maniacal condition, for which reason he was committed to the insane wards of the Charité. The patient could never learn to speak properly ; his entire vocabulary consisted of a very few words and a few stereotyped phrases which he had occasion to use frequently. He was able to write only his name (with his left hand). He died after a series of very severe epileptic attacks. The autopsy, though not complete in every respect, revealed that the following cortical areas were wanting : 1. The entire third frontal convolution. 2. The lower third, and almost the whole of the middle third of both central convolutions. 3. The whole of the inferior parietal lobule (lobulus supramarginalis and gyrus angularis). 4. The whole first temporal convolution, and the region of the island of Reil, though possibly some of the latter's convolutions were preserved. In the region surrounding the porencephalic area the normal convolutions radiated outward from the centre of the destroyed area, in the manner which Kundrat supposes to be characteristic of congenital porencephaly, but on the other hand the arachnoid membrane did not simply stretch across the porencephalic area, as Kundrat says is the rule in these cases, but the thickened arachnoid adhered firmly to the central portions of this area. For various reasons Binswanger argues that this pathological process did not set in until toward the latter part of fœtal life. In this case the Sylvian artery and all its branches were poorly developed, and the author supposes that this was due either to disturbances in nutrition, or to some traumatic local inflammatory process resulting in necrosis (anæmic) of cerebral tissues and defective development. The entire right hemisphere was quite normal ; it is certainly strange, therefore, that this hemisphere did not assume certain functions of speech ; the author is probably correct in assuming that this was due rather to the inferior mental status which did not require much speech, than to inability of the right hemisphere to assume these functions.

(From a comparison of the clinical and pathological data in cases of this sort, it is very evident that most of the symptoms will vary in each case according to the area or areas involved. The question is still an open one, therefore, whether it will be wiser to designate these affections according to the clinical symptoms or the pathological lesion.) B. S.

Note sur l'Existence de l'Ovarie dans la Chorée de Sydenham.

By P. Marie. *Progrès Médical*, p. 39, 1886.

Marie calls attention to the various points of tenderness and pain upon pressure which are met with in chorea. After mentioning the points described by Rosenbach and Seifert, the apophysal, thoracic, and lumbar, he calls attention to the occurrence of pain upon pressure over the ovaries. In the case of a small choreic girl he found, besides certain hysterical symptoms, well-marked pain over the ovaries. In 33 cases of chorea minor, of which 27 were girls and 6 boys, pain in the ovarial region was absent only 9 times. Sometimes the pain was spontaneous, but in most cases it could only be produced by pressure. Of the 9 cases in which it was not found 5 were boys, and pressure upon the spermatic cord or testicles did not cause any pain whatever. Marie says that the side upon which the ovarian point is found is always the side upon which the choreic movements commenced. The author inclines to the view that chorea is a form of hysteria, but would like more corroborative evidence before expressing himself positively. G. W. Jacoby.

Zur Pathologischen Anatomie der Bleilähmung (Lead Paralysis).

By Oppenheim. *Arch. f. Psych.*, xvi., p. 476. And

Ueber Bleilähmung.

By Schultze. *Arch. f. Psych.*, xvi., p. 791.

The question of the exact nature of lead palsy is still open. Erb and Remak argue very strongly in favor of the view that it has a central origin, and that it is due to lesion in the anterior cornua of the spinal cord. The symmetrical bilateral occurrence of paralysis with atrophy ; the peculiar localization of the paralysis in certain muscles, as if only particular groups of cells in the cord were affected, as in the case of infantile paralysis ; the resemblance in other respects, chiefly in the absence of sensory symptoms, and the presence of vaso-motor and trophic phenomena, which lead palsy bears to anterior poliomyelitis, are cited in favor of this hypothesis. And it is considered by the authors cited as definitely proven by the discovery in a considerable number of cases (12) of lesion in the gray matter of the anterior horns of the spinal cord. To these cases Oppenheim adds another in which an extensive anterior myelitis was found in an individual who gave a clear history of lead poisoning, and who had suffered from general lead palsy on several occasions and finally succumbed to the disease. The history is fully detailed, and the lesions clearly defined and described by the author. He shows that the condition was one of primary anterior poliomyelitis, affecting especially certain definite portions of the gray matter in the enlargements, and that it could not be traced to an extension of inflammation inward from a peripheral neuritis. The lateral portions of the anterior cornua escaped, and as the extensions were chiefly implicated the conclusion is drawn that these muscles are not innervated by the lateral groups of cells.

An interesting complication hitherto unnoticed was a gangrenous stomatitis, which occurred just prior to death.

On the opposite side of this question Schultze, of Heidelberg, brings an equally strong argument. He holds that the distribution of the paralysis may be equally well explained on the theory of a peripheral neuritis—the motor symptoms in multiple neuritis and poliomyelitis anterior having been shown by Leyden to resemble one another too closely to be distinguished in many cases. In both conditions atrophy and reaction of degeneration are common ; and it is certain that neuritis does not necessarily affect nerve trunks, but may involve only motor terminal branches, so that from the escape of certain muscles in the domain of a nerve, while others are paralyzed, nothing can be concluded. As to the absence of sensory symptoms, it is well known that some poisons have a selective action on the peripheral nerves, and that the motor or the sensory filaments may be affected independently by them, *e. g.*, conium, curare, atropin, pilocarpin. Why should not lead affect chiefly the motor nerves, which, in many parts, lie wholly separate from the sensory nerves in the extremities ?

It is certainly no more likely that lead should display a selective action for certain groups of cells in the cord than for certain sets of fibres in the nerves. The analogies to infantile paralysis are subjected to a searching criticism and shown to be less strong than has been supposed. The symptoms, therefore, are subject to an interpretation which favors the theory that peripheral neuritis is to be regarded as the lesion in lead palsy.

To the large number of cases in which an autopsy has demonstrated the absence of changes in the cord and the presence of changes in the peripheral nerves, Schultze adds another. In the radial nerves, below the point where the branch to the supinator longus muscle is given off, a marked atrophy, with disappearance of nerve fibres and increase of connective-tissue nuclei, was discovered, the sensory branches of the nerves being slightly, if at all, affected. The spinal cord was generally normal, no evidence of myelitis being present, no atrophied degenerated cells. A slight difference from normal consisted in there being a rather smaller number of cells in the anterior inner group in both enlargements on both sides, but even here no evidence of any change in their structure was to be detected.

He concludes that a lesion of the cord is certainly not a constant occurrence in lead palsy; and then examining the case of Oppenheim, already described, concludes that in it a condition of myelitis had developed, independent of the condition of lead paralysis. In other cases cited by Oppenheim, similar objections can be made, and in many of them no examination of the peripheral nerves was made. Further, Schultze shows that according to the law of Wallerian degeneration, if the lesion destroys the motor cell, its fibre degenerates in its entire length, while in lead palsy it is only the peripheral terminations of the nerve-fibres, not their whole length, which is atrophied. In many of the cases of lead palsy, there has been no affection of the anterior nerve-roots, which must have occurred had the cells from which they come been the seat of the lesion, as in infantile paralysis. From the existence of atrophy, limited to the peripheral terminations of the motor nerves in lead palsy, the lesion must be considered a peripheral neuritis. No explanation of the distribution of the paralysis can be given on either hypothesis.

The third view taken by Freidlander, that the lesion is primarily in the muscles, Schultze combats on the ground of the presence of a change in the nerves, which, as far as known, is never secondary to muscular atrophy. M. A. STARR.

A Case of Amyotrophic Lateral Sclerosis with Clonus of the Lower Jaw. By C. E. BEEVOR, M.D., etc. **With a Note on the Jaw-Jerk or Masseteric-Tendon Reaction in Health and Disease.** By A. DE WATTEVILLE. Reprint from *Brain*, part xxxii.

The "jaw clonus" is the only symptom of especial interest in this case. Dr. Beevor states that in his patient it could be obtained by placing the finger on the teeth of the lower jaw, and then depressing it. * * * "The lower jaw would then vibrate as long as the pressure was kept up by the finger on the teeth." Clonus could also be readily produced by striking the masseters. Dr. de Watteville, in his "Note," gives his method of eliciting the "jaw-jerk." He finds it best to introduce into the experimentee's opened mouth a tongue-depressor, or a paper-knife, which is made to press with its flat surface upon the teeth of the lower jaw. * * * "The blade is held down with a firm pressure, care being taken that the jaw is not fixed by any undue muscular contraction. A sharp tap with a convenient object, such as a ruler, or best of all with a percussion hammer, is then struck upon the paper-knife, close to the teeth." Dr. de

Watteville surmises that this symptom may at times acquire a diagnostic value in cases of bulbar or other disease. De W. and Waller obtained myographic tracings of the jaw-jerk, and found that .02 second is the time for the latency of the contraction of the muscles of mastication, both in the healthy and the diseased subject, a fact which, if corroborated, might argue in favor of the view that the so-called tendon reflexes are phenomena, due not to a true reflex excitation, but to the direct stimulation of the muscles by the sudden extensile impulse of the blow. (As Dr. de Watteville states in this note that the phenomenon he describes was first mentioned in America, but that he can find no reference to it, we would say that Dr. Morris J. Lewis was the first to record what he (Lewis) termed the "*chin-reflex*," that his case was reported in the *Philadelphia Med. News*, March 11, 1882, and that mention is made of it in the proceedings of the Philadelphia Neurol. Soc., published in this JOURNAL for April, 1885. As for the two terms, de Watteville's designation seems to us the more appropriate one, though we do not approve of the unpleasant alliteration.) B. S.

d.—MENTAL PATHOLOGY.

Post-Neuralgic Insanity. By Dr. C. H. HUGHES. *Alienist and Neurologist*, October, 1885.

Reports of two cases of insanity which were the "symptomatic expression of cerebral exhaustion." In one case the cure of precedent neuralgia, and in the other the marked amelioration of neuralgic symptoms, furnished the exciting cause precipitating the mental sequence. The mental symptoms presented were those ordinarily found in psychoses due to physical exhaustion, and both patients had been much run down. Schüle, in his manual, had pointed out a relation between insanity and neuralgia, but this is not of the kind here indicated.

Puerperal Insanity. By Dr. T. K. HOLMES. *Detroit Lancet*, November, 1885.

Dr. Holmes is of opinion from examination of twelve cases that cervical laceration is a not infrequent cause of puerperal insanity. He is evidently not aware of the fact that puerperal insanity has been repeatedly observed to occur independently of any uterine lesion, and further that most cases have a natural tendency to recovery. Dr. Holmes uses mania as a synonym for insanity most of the cases being decidedly not cases of that psychosis.

Alcoholic Insanity. By Dr. H. C. WOOD. *Polyclinic*, November, 15, 1885.

W. reports the case of a man who killed his son. C. B., a forty-five year old man, had been an exemplary husband and citiizen, until the last two years. He had long used alcohol freely, but until the last year had not drunk to excess. During this period he had become an habitual sot, and was generally under the influence of liquor, and had then abused his wife, and accused her, in the grossest manner, of being unchaste. He was excessively violent toward her, on several occasions pursuing her with some weapon, with the intention of killing her. Upon the stand witnesses stated that he would have killed her had he not been restrained by force. On one occasion he had put her out of the house, publicly declaring "that she was no better than a hound bitch, and that he would stand her on the porch and the men would come to her." He had sometimes been so furiously violent that he had to be tied, hand and foot, for hours. As it was generally believed that he would kill his wife, she separated from him. About four weeks before the crime for which he was tried, he declared that he would cease drinking and endeavor to get his wife back, but before her return, he had taken to drink again, and by the advice of friends she had remained away ; the children were left with him. At no time were his business faculties impaired ; not rarely was he almost dead-drunk, and only at long intervals was he twenty-four hours without drinking. When he abstained several days from liquor he was kind to his family and wife as formerly, and stated to witnesses that he had no belief in the accusations he made when drunk, so perpetually and freely, with apparent sincerity, against his wife. For these last reasons Dr. H. C. Wood does not believe the case one of alcoholic insanity, but as Dr. C. K. Mills says : "Many individuals who, when sober, are in a delusional condition, have then sufficient power to restrain themselves from committing overt acts. Some of these, when under the influence of liquor, commit crimes which are the results of their delusions. The exciting cause of the overt act is alcohol taking." It has been said by Spitzka, and it is in accord with the experience of the majority of alienists, that alcoholic lunatics are not consistently regulated by their delusions. Thus one patient may live in comparative tranquillity with a wife whom he suspects of committing adultery in the boldest manner and before his face night after night. In all probability the case was one of alcoholic insanity.

Pyschoses after Cataract-Operations. By LANDESBERG, *Medical and Surgical Reporter*, October 17, 1885.

Reports of two cases of insanity after cataract-operations. The first, a man aged sixty-five, had suspicional delusions with auditory, visual, and gustatory hallucinations. Four days after the onset of the mental symptoms the patient recovered. The second case was that of a woman, aged fifty-seven, on whom two operations for cataract were performed. The second day after the second operation the patient was irritable, querulent, and had auditory hallucinations followed by marked but temporary depression, and succeeded by a period of excitement. About four days after the onset of the mental symptoms the patient also recovered. The symptoms very markedly resemble those described by Schnabel (*Berichte des Naturwissen. Medic. Verein in Innsbruck*, Jahrg. viii.) as occurring in elderly people after cataract-operations. Approaching senility predisposed to insanity.

Insanity from Cocaine. By Dr. D. R. Brower, *Journal of the American Medical Association*, Jan. 16, 1866.

B. claims that cocaine may produce such a mal-nutrition of the brain as to cause insanity, and in the course of his paper he cites the following case : Dr. B., aged thirty-five, a neurotic man, a hard-working physician, in very laborious practice. Three years ago he discontinued opium, which he had been using excessively. He began the use of cocaine last May in one-eighth-grain doses, believing it to be a harmless stimulant, and being much run down by over-work. It gave him a sense of well-being never experienced from any drug before, very much more agreeable than that derived from opium. He gradually increased the dose until it reached fifteen grains a day hypodermically. The large doses produced mental disturbance ; he became irritable, quarrelsome, claimed to be possessed of a mission to revolutionize the medical practice, by being able to cure all diseases by cocaine. He gave it indiscriminately to all patients, to obstetric and syphilitic cases, to his wife, his three children, and his mother. Formerly a modest man of science, he became bold and unscientific in his methods, engaged in law-suits, carried a pistol, and frequently brandished it in public places, threatened vengeance upon all who dared to doubt his extravagant statements—a perfect terror in his neighborhood. He had been a very devout Roman Catholic, but his priest could not now restrain his wild impetuosity. By his manner and his neglect he very soon lost his practice. Piece by piece his horse, buggy, and furniture disappeared, until his family was reduced to poverty. Dr. Brower's efforts to persuade him to stop the drug resulted in making him the recipient of the wildest denunciations. Several physicians and druggists who made attempts to restrain him met with equally positive rebuffs. Extreme pallor and dryness of skin, great emaciation, loss of appetite, and no desire for sleep, so that for one week he did not assume the recumbent position, resulted. He went from bad to worse until his friends thought it best to restrain him. In pursuance Dr. F. L. Wadsworth and Dr. Brower advised the County Court to remove him to the Washingtonian Home. Here the cocaine was gradually withdrawn, but his extravagant delusions remained. He left this institution clandestinely, and is supposed to be in Canada. Were it not for Dr. Brower's reputation as an alienist it would be a not unnatural supposition to regard the patient as being a hypomaniac or in the early stages of paretic dementia. The influence of the cocaine in this case seems somewhat doubtful.

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